(BSP June 11, 2003)

Rapid Cure Silicone Sealant

Rapid cure silicone sealant shall be one of the following two products conforming to the following specifications:

Dow Corning 902 RCS Joint Sealant

The joint sealant shall be a rapid cure, 100 percent silicone, low modulus, self-leveling, cold applied, two part formulation, which is compatible with the surfaces to which it is applied. Rapid cure is defined as developing sufficient integrity within eight hours to accommodate both horizontal thermal movements and vertical movements at the joint.

The joint sealant shall not be an acid cure sealant.

The joint sealant shall conform to the following properties:

<u>As Applied</u>

Extrusion rate	MIL S 8802	200 to 550 grams/minute
Specific gravity	ASTM D 1475	1.25 to 1.35
Nonvolatile content		93 percent minimum

<u>As Installed</u>

(at 25C, 50 percent relative humidity, and 48 hours cure)

Skin-over time		20 minutes maximum
Joint elongation	ASTM D 5329*	600 percent minimum
Joint modulus	ASTM D 5329*	20 to 85 kPa at 100% elongation

*Section 14 modified as follows:
Pull Rate = 51 millimeters/minute
Specimen joint size = 13 mm by 13 mm by 51 mm

The primer shall be as recommended by the sealant manufacturer.

Watson Bowman Acme Two Part Silicone Sealant

The joint sealant shall be a cold applied, low modulus, two part formulation. When properly mixed, the joint sealant shall cure within four hours to form a well bonded seal.

The joint sealant shall conform to the following properties:

<u>As Supplied (Each Component)</u>

Extrusion rate	ASTM C 1183	200 to 600 milliliters/minute
Leveling	ASTM C 639	Self leveling

<u>As Installed</u>

Tack free time	ASTM C 679	60 minutes maximum
Joint elongation	ASTM D 5329[1, 2]	600 percent minimum

Joint modulus (min.)	ASTM D 5329[1, 2]	103 kPa at 100% elongation
Cure Evaluation	ASTM D 5893	Pass at four hours maximum
Ultimate elongation	ASTM D 412 Die C[1]	1,000 percent minimum
Ult. stress (max.)	ASTM D 412 Die C[1]	172 kPa at 150% elongation
Shore Hardness, 00	ASTM C 661[1]	40 - 80
Specific Gravity	ASTM D 792[1]	1.20 - 1.40

[1] Seven day cure at 25C±2C and 50±5 percent relative humidity
[2] Specimen joint size = 13 mm by 13 mm by 51 mm

The Contractor shall deliver the joint sealant to the job site in the sealant manufacturer's original sealed container. Each container shall be marked with the sealant manufacturer's name and lot or batch number. Each lot or batch shall be accompanied by the manufacturer's Materials Safety Data Sheet (MSDS), and Certificate of Compliance, identifying the sealant manufacturer and the lot or batch number, and certifying that the materials conform to the specified requirements.

The backer rod shall be closed cell expanded polyethylene foam as recommended by the sealant manufacturer and approved by the Engineer. The diameter of the backer rod shall be as recommended by the sealant manufacturer for the expansion joint opening at the time of installation.